

**REMARKS**

In the August 27, 2004 Office Action, the Examiner noted that claims 1-20 were pending in the application; rejected claims 1-7 and 9-20 under 35 U.S.C. § 103(a); and objected to claim 8 as dependent from a rejected base claim. In rejecting the claims, U.S. Patents 5,628,008 to Hayashi; 5,440,730 to Elmasri et al.; 6,078,923 to Burrows; 5,204,958 to Cheng et al.; 6,742,003 to Heckerman et al.; and 6,268,849 to Boyer et al. (References A-D, F and G, respectively) were cited. Claims 1-20 remain in the case. The Examiner's rejections are traversed below.

In item 3 on pages 2-8 of the Office Action, claims 1, 7, 9-11 and 17-20 were rejected under 35 U.S.C. § 103(a) as unpatentable over Hayashi which is directed to a system for assisting in the generation of a structured document search formula. As described at column 6, lines 26-53, Fig. 6 shows examples of fixed-type structural patterns stored in the knowledge base 6 illustrated in Fig. 1. The fixed-type substructures are patterns that would be used for retrieval by skilled users. Pattern 1 in Fig. 6 is described as a substructure of two records, one "having a 'heading' as the value of the field 'attribute'" (column 6, lines 31-32) and the second "record having a 'paragraph of main text' as the value of the field 'attribute,'" (column 6, lines 32-33), where these two records are "children of a record having a 'section' as the value of the field 'attribute,'" (column 6, lines 34-35). The second pattern is described as a substructure in which "a record of a 'paragraph of main text' is present as a child of a record having a 'section' as the value of the field 'attribute'" (column 6, lines 37-40) and has "a record of a 'drawing area' ... as its child" (column 6, lines 40-41). The "drawing area" record in turn has two children, one with an attribute that is indefinite and the other with an attribute of "area heading".

It is clear that the substructures illustrated in Fig. 6 of Hayashi define hierarchical relationships. That is, the section defined in pattern 1 includes a heading and a paragraph of text, while pattern 2 defines a section that includes a paragraph of text that substantially surrounds a drawing area which includes an area heading. What is apparently an example of this substructure is illustrated in Fig. 3 where the paragraph starts with "ALTHOUGH IT MAY APPEAR" and after the second line there is a drawing which includes the legend "FIG. 1" as an area heading. Since the sentence illustrated in Fig. 3 did not end, it appears inherent that the paragraph continues after the drawing area of "FIG. 1".

In other words, it is submitted that Hayashi does not teach or suggest "designating a search pattern using a plurality of events and a relation of a sequence of the plurality of events ... the relation of the sequence of the events being defined according to a sequential order of the attribute values" (claim 1, lines 4-7). Nothing has been cited or found in Hayashi suggesting that

the substructures stored in the knowledge base define a sequential order of the attributes. Therefore, it is submitted that all of the independent claims which have been amended to recite "a sequential order of attribute values" patentably distinguish over Hayashi, as well as claims 7 and 9-11 which depend from claim 1.

In item 4 on pages 8-10 of the Office Action, claims 2-4 and 12 were rejected under 35 U.S.C. § 103(a) as unpatentable over Hayashi in view of Elmasri et al. In making this rejection it was asserted that it "would have been obvious to a person of ordinary skill in the art at the time the invention was made to apply Elmasri's teaching of the type of query ... the salary history for all employees during the time interval [4,5] to Hayashi's system in order to retrieve all events [that] occurred at the same time" (Office Action, page 9, lines 3-6). It is submitted that there is no support for this assertion. Hayashi is directed to retrieving text from documents. There is no time aspect of such data. Therefore, it is unclear what, if anything, one of ordinary skill in the art would have used the teachings of Hayashi and Elmasri et al. to produce. Furthermore, nothing has been cited or found in Elmasri et al. suggesting that "the relation of the sequence of the events ... are defined according to a sequential order of attribute values" (e.g., claim 1, lines 6-7). The mere fact that time is taken into account in Elmasri et al. does not mean that there is a relation between the sequence of events based on the sequential order of attribute values, as recited in the independent claims. Therefore, it is submitted that claims 2-4 and 12, as well as claims 1, 7, 9-11 and 17-20 patentably distinguish over Hayashi in view of Elmasri et al.

In item 5 on pages 10-11 of the Office Action, claim 5 was rejected under 35 U.S.C. § 103(a) as unpatentable over Hayashi in view of Burrows. As in the case of Hayashi, nothing has been cited or found in Burrows regarding defining a sequential order of attribute values. Since claim 5 depends from claim 1, it is submitted that claim 5 patentably distinguishes over Hayashi in view of Burrows.

In item 6 on page 11, claim 6 was rejected under 35 U.S.C. § 103(a) as unpatentable over Hayashi in view of Cheng et al. As in the case of Burrows, nothing has been cited or found in Cheng et al. suggesting modification of Hayashi to overcome the deficiency discussed above. Therefore, it is submitted that claim 6 patentably distinguishes over Hayashi in view of Cheng.

In item 7 on pages 12-13 of the Office Action, claims 13-15 were rejected under 35 U.S.C. § 103(a) as unpatentable over Hayashi in view of Boyer et al. In rejecting claims 13-15, Fig. 12 of Boyer et al. was cited as an example of records that have been sorted by date and time and then searching the sorted records. While Fig. 12 of Boyer et al. lists information ordered by date and time, there is nothing in Fig. 12 suggesting what, if any, sorting has taken

place, or how the substructures taught by Hayashi should be modified to include date and time information for sorting and then searching. The searching method taught by Hayashi relies upon matching the stored substructures with documents. As discussed above, there is no time information in such documents and therefore, it is unclear why a person of ordinary skill in the art would find it obvious to modify the teachings of Hayashi based on a schedule of television programs. In short, nothing has been cited or found in Boyer et al suggesting modification of Hayashi to overcome the deficiency discussed above with respect to the independent claims. In addition, it is unclear how the substructures in Hayashi could be sorted or what benefit would be gained from doing so. Therefore, it is submitted that claims 13-15 further patentably distinguish over Hayashi in view of any obvious modifications from Boyer et al. for this additional reason.

In item 8 on page 13 of the Office Action, claim 16 was rejected under 35 U.S.C. § 103(a) as unpatentable over Hayashi in view of Heckerman et al. The teaching in Heckerman et al. at column 23, lines 50-55 was cited as disclosing "a group information storing device used for accessing the set or records for each group according to values of a predetermined attribute" (claim 16, lines 2-3). The cited portion of Heckerman et al. describes "components that form segment viewer 1500 and produce display 1800 which are reference numerals used in Figs. 13 and 18. Although not cited by the Examiner, a description of what the segment viewer does is provided at column 23, lines 5-50. This description indicates that segments form a "segment group", but how that group is defined and accessed is not indicated. Furthermore, nothing has been cited or found in Heckerman et al. suggesting modification of Hayashi to overcome the deficiency discussed above with respect to the independent claims. Therefore, it is submitted that claim 16 patentably distinguishes over Hayashi in view of Heckerman et al. for the reasons discussed above with respect to the independent claims and that claim 16 further patentably distinguishes over this combination due to the lack of teaching of the details recited in claim 16.

## **Summary**

It is submitted that the references cited by the Examiner, taken individually or in combination, do not teach or suggest the features of the present claimed invention. Thus, it is submitted that claims 1-20 are in a condition suitable for allowance. Reconsideration of the claims and an early Notice of Allowance are earnestly solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

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If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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